

D4
amended

first indexing portion enabling an angular position of the stator around the stator axis to be identified.

33. (new). An alternator according to claim 32, wherein the first indexing portion includes a stud and wherein the case has a second indexing portion having a groove suitable for co-operating with the indexing portion of the insulating element.

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34. (new). An alternator according to claim 1, wherein the winding further comprising an arched twisted lead.

REMARKS

Reconsideration of the above-identified application in view of the foregoing amendments and the following remarks is respectfully requested.

A. Status Of The Pending Claims And Explanation Of Amendments

Claims 1-9 and 13-21 were pending in this application. Applicant notes with appreciation that claim 21 was allowed, and that allowable subject matter was recognized in claims 3, 5, 9 and 13-17. These claims, however, were objected to as being dependent upon a rejected base claim.

Several paragraphs in the specification were amended to correct various minor errors (typographical, grammatical or form). No new matter will be entered in these amendments are enters.

Claim 1 was amended to recite, *inter alia*, that the insulating element is "an annular body mounted on the case." Support for this amendment is found throughout the specification and figures, and in particular at page 1, lines 27-33; page 3, lines 15-16; and page 4,

lines 18-19.

Claims 18-20 were previously withdrawn from consideration. To that end, Applicant has now cancelled these claims without prejudice or disclaimer.

New claims 22-26 have been added that depend from allowed claim 21. These claims recite various features that had been recited in pending dependent claims. For at least similar reasons, these claims also are in condition for allowance. No new matter would be entered into this application by entry of these amendments.

In addition, new independent claim 27 and depend claims 28-33 have been added. Independent claim 27 recites, *inter alia*, “an insulating element interposed, radially relative to the stator axis, between the case and the winding.” This language is similar to the language in dependent claim 5 that was found to be allowable. For at least similar reasons, claim 27 and its dependent claims 28-33 are also submitted to be in condition for allowance.

In addition, new claim 34 has been added. This claim depends from claim 1 and further recites, *inter alia*, “wherein the winding further comprising an arched twisted lead.” Support for this claim element is found throughout the specification and in particular at page 2, lines 13-18. No new matter is added by this amendment.

As to the merits, Claims 1-2 and 4 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 3,502,917 to Bizoe (“Bizoe”). Claims 1-2, 4 and 6-7 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 5,877,572 to Michaels et al. (“Michaels”). Claim 8 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Bizoe or Michaels, further in view of U.S. Patent No. 3,002,119 to Lindstrom (“Lindstrom”).

Respectfully, each of these rejections is now moot. Amended claim 1 recites, *inter alia*, an “insulating element being an annular body mounted on the case.” This element is nowhere shown in any of the three cited references. More specifically, Bizoe’s strain relief connector 22, having L-shaped body sections 23, 24, Michaels’ winged-terminal housing 15, and Lindstrom’s insulating members 35 – all of which were alleged to correspond to Applicant’s insulating element – do not comprise “an annular body mounted on the case” as recited in Applicant’s claim 1. For at least this reason, claims 1-9 and 34 are patentably distinguished from the cited references. Reconsideration is requested.

CONCLUSION

In view of the above remarks, it is respectfully asserted that this application is in condition for allowance, and the Applicants request an early and favorable examination on the merits. In the event that a telephone conference would facilitate the examination of this application in any way, the Examiner is invited to contact the undersigned at the number provided.

THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED FOR THE TIMELY CONSIDERATION OF THIS AMENDMENT UNDER 37 C.F.R. §§ 1.16 AND 1.17, OR CREDIT ANY OVERPAYMENT TO DEPOSIT ACCOUNT NO. 13-4500, ORDER NO. 3401-4022.

Respectfully submitted,
MORGAN & FINNEGAN, L.L.P.

Dated: June 20, 2002

By:



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APPENDIX
(Changes Shown)

On page 1, please delete the SECOND full paragraph beginning “A vehicle alternator is known” and substitute therefore:

A vehicle alternator is known that comprises a case, a stator winding, and a solidified electrically-insulating varnish impregnating the end turns and the twisted leads of the winding so as to insulate them electrically from the adjacent case and so as to reinforce their mechanical strength. The neutral points of the winding [is] are insulated in the same manner. Nevertheless, when subjected to the vibration due to operation, there is a major risk of the varnish being abraded and thus of the electrical insulation of the end turns, the twisted leads, and the neutral [point] points disappearing.

On page 1, please delete the THIRD full paragraph beginning “Document US-4 658 164 discloses” and substitute therefore:

[Document US-4 658 164] U.S. Patent No. 4,658,165 discloses a vehicle alternator in which an electrically-insulating screen is provided in the form of a separate piece extending between the stator winding and the case. That avoids the risk of abrasion. However, that [document] patent provides for the twisted leads to be returned along the screen and complicates connection thereof.

On pages 3-4, please delete the TENTH full paragraph beginning “With reference to Figures 1 to 3” and substitute therefore:

With reference to Figures 1 to 3, the alternator 2 comprises in conventional

manner a shaft of axis 5 and a case of which only a shell 4 is shown herein. The shell has a plane rear wall 6 perpendicular to the axis 5 forming a rear plate with a bearing for the shaft, and a cylindrical side wall 8 about the axis 5. The shell is closed by a cover that forms a front bearing and that is not shown. The alternator has a stator 10 comprising a stack of laminations 12 on which a winding 14 is wound. The wires of the winding are received in slots (not shown) in the stack of laminations 12 extending parallel to the axis. The winding 14 has end turns that emerge through the rear axial end of the stack of laminations 12. This winding has twisted leads 16 of live wires, in this case three such [loads] leads since the winding is a so-called "single" winding. The twisted leads 16 emerge from a rear axial end face of the winding 14.

IN THE CLAIMS

Please AMEND the claims as follows:

1. (twice amended) A vehicle alternator comprising
a case,
a stator winding, and
an electrically-insulating element interposed between the case and the winding, the insulating element being [a solid] an annular body mounted on [one of] the case [and the winding],
wherein the insulating element has at least one duct extending through an orifice in the case.

Please cancel claims 18-20 without prejudice or disclaimer.

Please add the following new claims:

--22. (new). An alternator according to claim 21, wherein the insulating element is interposed radially, relative to an axis of the stator, between the case and the winding.--

--23. (new). An alternator according to claim 21, wherein the insulating element is interposed between the case and the winding axially relative to an axis of the stator.--

--24. (new). An alternator according to claim 21, wherein the insulating element extends in register with an inner side face of the winding.--

--25. (new). An alternator according to claim 21, wherein the insulating element has a first indexing portion enabling an angular position of the stator around an axis of the stator to be identified.--

--26. (new). An alternator according to claim 25, wherein the first indexing portion includes a stud and wherein the case has a second indexing portion having a groove suitable for co-operating with the indexing portion of the insulating element.--

--27. (new). An alternator comprising:

a case having at least one orifice;

a stator positioned within the case, the stator defining a stator axis;

a winding wound on the stator;

an insulating element interposed, radially relative to the stator axis, between the case and the winding; and

at least one duct extending from the insulating element through an orifice in the case.--

--28. (new). An alternator according to claim 27, wherein the at least one duct extends from an inside face of the insulating element along the stator axis.--

--29. (new). An alternator according to claim 28, further comprising at least one live wire twisted lead of the winding received by the at least one duct.--

--30. (new). An alternator according to claim 29, wherein the twisted lead are offset so as to project from the winding in a radial direction towards the stator axis.--

--31. (new). An alternator according to claim 27, wherein the insulating element extends in register with an inner side face of the winding.--

--32. (new). An alternator according to claim 27, wherein the insulating element has a first indexing portion enabling an angular position of the stator around the stator axis to be identified.--

--33. (new). An alternator according to claim 32, wherein the first indexing portion includes a stud and wherein the case has a second indexing portion having a groove suitable for co-operating with the indexing portion of the insulating element.—

--34. (new). An alternator according to claim 1, wherein the winding further comprising an arched twisted lead.--